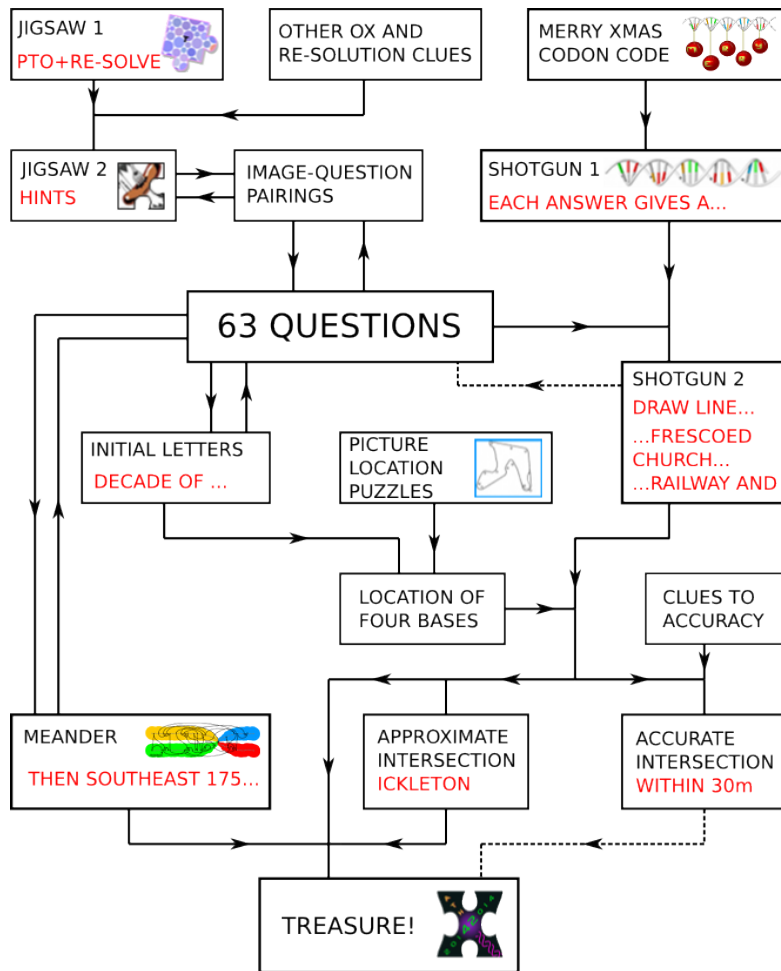


## Setters' notes

When designing the structure of the hunt, we wanted on the one hand to avoid hunters getting irredeemably stuck, but on the other hand not to make it too easy for a large portion of the hunt to be shortcut. Our attempt to square this circle involved suggesting the location of each base by several somewhat fuzzy clues: it would be quite an achievement to guess the location of a base on the basis of any single clue, but it probably wouldn't be necessary to use all of them. We also tried to make some of the puzzles interlock in such a way that solving one puzzle became easier as others were solved. For example, when hunters were left with just a few remaining awkward questions unanswered, they might at least know their corresponding vignetted images and letter pairs.

As it turned out, our detailed plans didn't always work in the way intended, and in one or two cases teams found ingenious ways to shortcut portions of the hunt despite our best efforts.

A possible flow of reasoning is depicted in the accompanying figure. The diagram only shows the main paths and does not include seasonal greetings, general thematic material, or of course the red herrings.



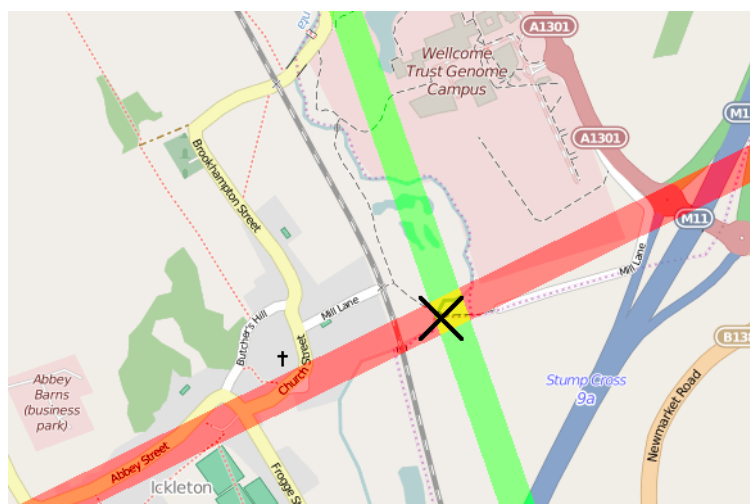
The idea for the DNA cube puzzle on the poster was ~~filched from~~ inspired by the illustration on the front cover of some editions of the book *Gödel, Escher, Bach: an Eternal Golden Braid* by Douglas Hofstadter, showing a three-dimensional solid whose projections along three perpendicular axes give the letters 'G', 'E' and 'B'.

When constructing the AVALON map puzzle (puzzle G1) we knew that 'Rue de Vogon' was a real street in Rizaucourt-Buchey because of on-line references to it and road signs visible on Google Street View; unfortunately, however, it appeared as 'Rue de Vognon' in OpenStreetMap, Google Maps and Bing Maps. It wasn't easy to find a suitable alternative thematic word (sadly no local council has been enlightened enough to name a road 'Vroomfondel Avenue'), and so it seemed that we might have to abandon the idea. More in hope than expectation one of us submitted a correction to OpenStreetMap. If the error was corrected there (and we gave a hint to use that site), then we felt hunters would have a reasonable chance of finding the right name despite it still being wrong on the other mapping sites. To our surprise, not only was the error corrected in OpenStreetMap within 24 hours, it was also corrected on the other sites in the course of the next few days! It would seem that Google and Bing track changes made to OpenStreetMap.

A similar fortuitously timely correction occurred in the case of the hymnboard puzzle. The list of contents for *The New Oxford Book of Carols* on the Oxford University Press website omitted a carol, thereby ruining the numbering: we contacted OUP and happily they obliged by fixing the problem in time for the start of the hunt. Incidentally, in the construction of that puzzle, one of the setters realised he had spent so long photoshopping in the numbers that it would have been several times quicker to visit the church, set up the desired numbers and take a new photograph.

A little before the hunt went live, we noticed that we'd accidentally used left-handed helixes for our DNA pictures, whereas real DNA is almost exclusively right-handed. Rather than redo them all, we decided we'd award a bonus mark to anyone who noticed (which appears to be no-one).

If it is assumed that the co-ordinates for the four bases given in the intersection construction above each have an error of up to 5 metres, then the resulting possible region of intersection can be plotted. This gives two rays, each of roughly 80m width, as illustrated by the accompanying map.



We apologise to hunters who spent excessive amounts of their Christmas holidays chasing red herrings, or who now have blisters from cutting up—or RSI from photoshopping—jigsaw puzzle pieces. It may be some small consolation to know that, besides the other travails, tribulations and toil involved in setting the hunt, we cut out a full set of double-sided pieces on three separate occasions. We also made around a dozen trips to the treasure site, one to Ath just to see what it was like, and two to Antwerp.

## Acknowledgements

We would like to thank everyone who took part, particularly those teams brave enough to let us (virtually) look over their shoulders while they solved the hunt. It was fascinating to follow their thought processes, their torments and their triumphs, and to watch a nail-bitingly close race to the treasure. We are also grateful to those who helped us during the setting process, in particular to Richard Tucker and Juliette Culver for their extensive playtesting and helpful feedback.

Thanks also to the authors—far too many to list—of all the pieces of open-source software we used to construct the hunt: Cairo, GCC, GIMP, Inkscape, L<sup>A</sup>T<sub>E</sub>X, Linux, Octave, PicoSAT, PMW and POV-Ray to name just a few.

And finally many thanks to all who took the time to write to us with their comments on the hunt. We hope you enjoyed solving it as much as we enjoyed setting it.